

Missouri Department of Agriculture Specialty Crop Block Grant Annual Report

“Chestnuts, Wine Grapes, and FFA”

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USDA AMS Agreement Number: 12-25-G-0611

Date Submitted: March 4, 2011

Project 1: Exploring Rural Development with Local Youth through Specialty

Crops: Chestnuts

University of Missouri-Center for Agroforestry

Dr. Michael A. Gold

December 27, 2010

Project Summary

In 2008, the MU Center for Agroforestry (UMCA) at the University of Missouri initiated a three year project with Specialty Crop Block Grant Program (SCBGP) funding to introduce future chestnut growers and FFA students in a five-county area to chestnut production.

The primary project purpose was to help stimulate the development of a chestnut industry in Missouri through the establishment of working orchards linked to extensive grower training for new producers, MU Extension Specialists and FFA students. The Chinese chestnut effort proposed in the Specialty Crop Block Grant Program represented the next logical step in an organized and comprehensive approach to the establishment of a totally new farm-based chestnut (black walnut, pecan) specialty crop industry in Missouri. It represented an opportunity for long-term, sustainable specialty crop product diversification for those currently producing traditional tree fruit crops and a completely new opportunity for those already involved in other aspects of horticulture (e.g., wine grapes) and agritourism.

Project Approach

The SCBG chestnut project consisted of five separate components.

1. Workshops

Four hands-on chestnut production workshops were offered during strategically selected phases of the growing season to optimize demonstration and learning opportunities. Original target participants included existing and new growers, MU Extension Specialists and FFA students. The periodic workshops were conducted by UMCA staff, and served as a pilot project to introduce new growers. Workshop topics were designed to be timely with regard to both the time of year and related concerns as well as the age of the orchard. In a change from the original idea, all training took place in New Franklin, Missouri at the MU Horticulture and Agroforestry Research Center (HARC) to demonstrate practices used in a mature orchard. Due to unforeseen problems in Lexington, the new planting in Lexington, MO. at the Fahrmeier Farms was a work in progress and continued through project years 2 and 3. As the demonstration orchard matures and comes into production, the subject list for future workshops will be expanded. These workshops will provide new growers, Extension Specialists and students with knowledge of the soil, climatological, and financial requirements of a profitable chestnut orchard, as well as experience in the cultural practices and marketing necessary to achieve success in chestnut production.

2) Demonstration Plantings

In addition to the research and demonstration orchards developed and maintained by MU at the Horticulture and Agroforestry Research Center in New Franklin, MO, a demonstration orchard was established near Lexington, MO (and another in Napton, MO) and these will serve as sites for future hands-on workshops in orchard establishment and maintenance for prospective new growers, Extension Specialists and

FFA chapters. In the years to come, the newly developing commercial orchards will provide FFA students with a unique opportunity to gain first-hand experience in essential orchard establishment and management operations. The new orchards will demonstrate the commercial viability of chestnut production in the region and of the cultivars planted within it, which will be of great interest to prospective commercial growers, Extension Specialists, and FFA students. As the site of a new Specialty Crop Field Day held in the fall of 2010, the Fahrmeier demonstration orchard served as the point of introduction to chestnut production for both FFA students and the local general public.

3) Internships

Annual summer internships in chestnut culture (production and marketing) were offered in 2008, 2009, and 2010. Internships were filled by University students. These internships trained students who are now knowledgeable in the fundamental aspects of chestnut establishment, management and marketing. These student interns are now employable by future commercial chestnut growers in the region. They are also able to serve as a local resource for others interested in entering the chestnut specialty crop industry.

4) Field Days

Chestnut Production Field Days were held annually at the MU HARC Farm. In 2010, a new FFA specialty crop field day was offered at the Fahrmeier Farms in Lexington, MO. The Field Days helped to expand the awareness-building aspect of the project to include current and potential grape and chestnut growers. These events introduced attendees of all ages to opportunities in the wine grape and chestnut industries, and educated them in the essential aspects of successful wine grape and chestnut production. In the future, the FFA student workshops will become more advanced as the Fahrmeier vineyard and chestnut orchard mature.

5) Specialty Crop Fall Festival

UMCA created the Missouri Chestnut Roast as an annual fall festival in 2003 to help revitalize Missouri agriculture and showcase the Missouri River Hills region by educating landowners and the public at large about the economic and environmental benefits of specialty crops, including chestnut, black walnut, pecan, gourmet mushrooms. In addition to farm tours, music, children's activities, roasted chestnuts, cooking demonstrations, educational activities, and a historic home tour, numerous vendors showcase and sell their specialty crop products to the public. A specialty crops festival was established at the Fahrmeier Farm in the Lexington, Missouri region in 2010, showcasing the wine grape and chestnut industries but having a much broader impact on the public, the Missouri specialty crop industry, and Missouri River Hill agritourism, similar to the now highly successful Missouri Chestnut Roast.

Goals and Outcomes Achieved

1) In 2010, UMCA offered the 4-part "hands-on" chestnut production workshops at HARC for the second consecutive year. NOTE: A detailed evaluation report, documenting participant feedback based on the 2010 workshop series is attached to this document. Nineteen individuals signed up for the 2010 series. Similar to the 2009 activities, the project focuses in 2010 centered on recruiting and educating new growers. MU Extension Specialists and FFA instructors and students were invited to all

workshops free of charge, but none attended. Workshops were held during strategically selected phases of the growing season to optimize demonstration and learning opportunities for new growers and Extension Specialists (and FFA instructors and students). The workshops were conducted by UMCA staff with additional outside grower/instructors participating in specific workshops. Over a two year period, a total of 60 individuals attended the chestnut workshop series.

As new chestnut orchards in Lexington (Fahrmeiers), Napton (Stouffers), Macon (Fadlers) and orchards established elsewhere by those attending the 2009-2010 workshop series mature and come into production, the subject list for future years will be expanded appropriately to include these new plantings and more interaction with active Missouri Chestnut producers.

The purpose of the workshop series was to introduce new growers to the fundamental concepts and practices paramount to successful chestnut orchard establishment, operation, harvesting and marketing. The workshops provided new growers with knowledge of the soil, climatological, and financial requirements of a profitable chestnut orchard, as well as experience in the cultural practices and marketing necessary to achieve success in chestnut production. In 2010 the following workshops were held at HARC:

- Workshop 1: *March 23, 2010*. Site selection and soils, site preparation, spring planting, plan grafting efforts, orchard pruning and cultural techniques.
- Workshop 2: *May 4, 2010*. Grafting.
- Workshop 3: *August 17, 2010*. Orchard maintenance, weed control, tree management, insect scouting and pest management, disease control, nutrition and irrigation.
- Workshop 4: *September 14, 2010*. Chestnut harvest, post-harvest, marketing and sales.

2) UMCA utilized SCBGP funds to support the newly established chestnut plantings at the Fahrmeier Farm in the Lexington Region. This new location, first used in 2010, will be used for future training workshops, FFA field days and future specialty crop festivals.

3) A summer intern was hired in 2010 to work on all phases of chestnut production during the 2010 growing season and participated in all offered workshops.

4) The Fahrmeier brothers hosted both a specialty crops field day for 200 FFA students from four different schools and a specialty crops festival at their farm in the Lexington Region on back-to-back days in late September, 2010. UMCA supported both events, spoke with all four FFA groups about chestnut production and staffed an information booth and roasted chestnuts at the specialty crops festival. The 8th Annual Missouri Chestnut Roast took place on October 16, 2010 and representatives from communities throughout the Lexington Region were invited to attend and observe the festival. Members of the "Old Trails Regional Tourism Partnership" staffed a booth at the 2010 Missouri Chestnut Roast.

5) FFA students and instructors were provided with a Chestnut Production Guide for use in future FFA field day events.

Beneficiaries

Missouri landowners were the primary beneficiaries of the three-year SCBGP chestnut award. Sixty landowners were trained in chestnut production, including both existing chestnut growers with young orchards and landowners planning to get started in the chestnut business. In addition, some of the individuals attending the workshops are pursuing value-added opportunities (e.g., chestnut flour) in support of a larger Missouri chestnut industry. Additional beneficiaries include FFA students exposed to new career opportunities in the specialty crops industry. Furthermore, the wide exposure given to both chestnuts and other specialty crops at the Missouri Chestnut Roast and other new festivals is creating new markets for Missouri grown specialty crops outside of the state of Missouri. For example, a high end restaurant in New York City (Print Restaurant) is now providing both Missouri grown chestnut and black walnut on their menu. In an interesting spinoff to the SCBGP supported activities, on October 30, 2010, the Forrest Keeling Nursery in Elsberry, Missouri, created and hosted a new festival entitled "*The Great River Road Chestnut Roast*". Forrest Keeling Nursery has also taken on the responsibility of becoming the primary nursery in the entire Midwest Region producing high quality, tested, chestnut cultivars based on the research conducted at the HARC Farm. There is little doubt that the impact of the chestnut SCBGP has been to catalyze the growth of specialty crops throughout the state of Missouri and extend an awareness of this industry throughout the USA.

Lessons Learned

Creating a new chestnut industry is a long-term endeavor. The Center for Agroforestry at MU invested 12 years on chestnut research and outreach prior to the 2008 SCBGP award. The award has helped reach out to 60 additional new and potential chestnuts growers. These landowners will need support for their specialty crop production for many years to come. In order to more effectively reach FFA students, it will be critical to have a number of working chestnut orchards willing to serve in a mentoring capacity in the coming years. Producing chestnut orchards will create opportunities for future FFA students to take on chestnut crop production as part of their SAE projects. Once FFA students have hands on experience with chestnut production and see for themselves the profit potential, the long-term future of our Missouri chestnut industry will become that much brighter.

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Additional Information

2010 Activities Performed

UMCA moved forward on four different activities during 2010. 1) We hired an MU student intern, Charles Hansen, for the summer of 2010, who worked closely with Dr.

Ken Hunt and gained skills and practical experience in all phases of chestnut orchard production, maintenance and harvest. 2) For the second year, UMCA sponsored a four-part chestnut workshop series with 19 individuals enrolled in the series. 3) UMCA hosted the 8th Annual Missouri Chestnut Roast fall festival at the MU Horticulture and Agroforestry Research Center (HARC) in New Franklin, Missouri, on October 16th, 2010. Over 3,000 people from the Mid-Missouri region attended the 2010 event. 4) Dr. Michael Gold and Dr. Ken Hunt continued their collaborative work with the Fahrmeier Brothers to expand their initial chestnut orchard planting on their property near Lexington, Missouri. 5) UMCA supported the new specialty crops field day and specialty crops festival held in the Lexington, MO region at the Fahrmeier Farm on Sept. 24-25, 2010. In addition UMCA supported the Great River Chestnut Roast in Elsberry, MO held on October 30, 2010.

Evaluation of Project Success, Problems and Delays

At present, the only fully operational commercial chestnut production operation in the region is located at the MU Horticulture and Agroforestry Research Center (HARC) in New Franklin, Missouri. However, a central element of the SCBGP chestnut activities included development of chestnut growers in the Lexington, Missouri, region. In 2009, UMCA researchers Gold and Hunt developed a new collaboration with the Fahrmeier Brothers Farm (and associated Three Trails Winery) in Lexington. The Fahrmeier Farm established a small chestnut orchard in the spring of 2009 and additional grafted chestnut trees were provided in the fall of 2010 to increase the size of their orchard. Gold and Hunt also supported the development of another new chestnut orchard in Napton, Missouri. In future years, this location (along with HARC and other newly established orchards) will become the primary sites for both "future grower" trainings and FFA centered activities.

An evaluation report is attached to this 2010 and final performance report detailing the feedback we received from the individuals who attended the 2010 chestnut workshop series. Feedback was overwhelmingly positive.

2011 Future Project Plans

The Center for Agroforestry at MU will continue to build upon the activities supported by the MDA SCBPG and continue to offer the 4-part Chestnut Workshop series in 2011. To accomplish our training objectives in 2011, we will again offer a series of four hands-on chestnut production workshops at HARC. Since the HARC farm contains a variety of chestnut plantings, from newly planted, non-bearing orchards to mature, commercially bearing orchards, all 2011 workshops will take place in New Franklin, Missouri at HARC. The focus will continue to center on recruiting new and existing growers and educating current MU Extension Specialists, but in addition, FFA instructors and students will be invited to all workshops. Workshops will be held during strategically selected phases of the growing season to optimize demonstration and learning opportunities for new growers and Extension Specialists (and FFA instructors and students). As in previous years, workshops will be conducted by UMCA staff, and serve to introduce new growers, Extension Specialists (and FFA instructors/students if they enroll) to the fundamental concepts and practices paramount to successful chestnut orchard establishment, operation, harvesting and marketing. Workshops will provide

new growers, Extension Specialists (and FFA instructors and students) with knowledge of the soil, climatological, and financial requirements of a profitable chestnut orchard, as well as experience in the cultural practices and marketing necessary to achieve success in chestnut production.

- Workshop 1: *March 22, 2011*. Site selection and soils, site preparation, spring planting, plan grafting efforts, orchard pruning and cultural techniques.
- Workshop 2: *May 3, 2011*. Grafting.
- Workshop 3: *August 16, 2011*. Orchard maintenance, weed control, tree management, insect scouting and pest management, disease control, nutrition and irrigation.
- Workshop 4: *September 13, 2011*. Chestnut harvest, post-harvest, marketing and sales.

UMCA will continue to provide support to the newly established chestnut plantings at the Fahrmeier Farm in the Lexington Region along with other newly established plantings around the state of Missouri.

The 9th Annual Missouri Chestnut Roast will be held October 8th, 2011.

Funds Expended to Date

At the close of the three year SCBGP project, \$67,155 was expended on this project, including both direct and 10% indirect charges. Funds were spent to support the 2008, 2009, and 2010 interns; to sponsor the 4-part workshop series in 2009 and 2010 including faculty and staff time directly related to the workshops; to provide technical support and materials to the Fahrmeier Farm to help establish a new chestnut orchard; to cover a portion of the 2009 and 2010 Chestnut Roast festival costs in New Franklin, MO; to support the Fahrmeier Farm FFA field day and specialty crop festivals held in the fall of 2010. A full account of the expenditures to date indicates that this project expended all allocated funds and stayed within budget. Final expenditure allocation broke down as follows: Salaries & Wages \$33,572.00; Staff Benefits \$4,572.75; Department Operating Expenses \$22,905.25; and MU F&A Costs \$6,105.00.

Additional Information:

Chestnut Workshop Series Summaries 2009 and 2010 PDFs attached separately.

Project 2: Exploring Rural Development with Local Youth through Specialty Crops: Winegrape Component

Institute for Continental Climate Viticulture and Enology

University of Missouri

Dr. R. Keith Striegler, Eli Bergmeier and Tammy Jones

January 7, 2011

Project Summary

In 2008, the Institute for Continental Climate Viticulture and Enology (ICCVE) at the University of Missouri initiated a three year project to introduce FFA students in a five-county area to viticulture with support from a Missouri Specialty Crops Block Grant. The purpose of the project was to educate high school students in the essential aspects of wine grape production as part of a larger effort to expand students' knowledge of specialty crops and the opportunities they offer. The initial project concept was to provide education through periodic classroom style workshops coupled with in-field experiences, as well as larger special events.

Project Approach

2008

ICCVE personnel conducted seven workshops for students in 2008 and presented information on a broad range of topics. A partial list of the subjects addressed included site selection and preparation, cultivar selection, grapevine rootstocks, weed and disease control, insect pest management, wine grape trellising, vine training, and the economics of vineyard establishment and operation. The workshops were held in collaboration with Lex La Ray Technical Center in Lexington, MO, and featured a mixture of classroom and in-field discussions.

The demonstration vineyard was successfully established in 2008 at Fahrmeier Farms in Lexington, MO, and served as the site for the in-field discussions and demonstrations. This planting, approximately 0.75 acre in size, features modern design (high plant density, metal trellising, drip irrigation, etc.), and hosts 20 different grapevine cultivars. The vineyard will be utilized to provide continuous in-field educational opportunities for students and existing grape producers in the region, as well as a first-hand look at the many grapevine cultivars that may be grown successfully in the region.

A Multi-State and FFA Viticulture Field Day was held on July 28, 2008 at Fahrmeier Farms which drew attendance in excess of 160 persons – the largest ever recorded for this event. The audience was comprised of FFA students from local chapters and grape industry stakeholders from 4 states. Six vendors serving the industry registered to showcase their products and services, and five presentations addressing vineyard development and management were delivered by ICCVE staff and colleagues from surrounding states.

2009

In response to low attendance in the 2008 workshops, the number of workshops was reduced to two during the summer of 2009, and these events were scheduled for July 2 and August 6. ICCVE personnel assembled an educational workshop curriculum in early May and distributed announcements for these two events on May 23. Two additional reminders were distributed prior to each event, and pre-registration was requested to facilitate meal arrangements. Unfortunately, no registrations were received for either event and they were cancelled due to lack of interest. This lack of response prompted us to delay the Wine Grape and Chestnut Production Field Day until 2010, with hopes that additional marketing efforts would help boost attendance in that year.

Establishment of the demonstration vineyard continued very successfully in 2009 at Fahrmeier Farms in Lexington, Missouri, and several cultivars were expected to come into production in 2010. Drip irrigation was successfully installed in early July.

The internship program detailed in the 2008 report was successfully initiated with one intern being placed with Fahrmeier Farms during the summer of 2009. An internship was also offered at nearby Baltimore Bend Vineyard in Waverly, Missouri but no applications were received for the position.

The pilot vineyard lease program, also detailed in the 2008 annual performance report, was developed and advertised in May of 2009. The lease program was developed to help mitigate the high cost of vineyard establishment and any economic barriers to participation that the schools or F.F.A. students may have had. Unfortunately, no expressions of interest were received from the schools or area FFA chapters.

2010

Once again, workshops were planned to be presented to area high school students. ICCVE personnel planned to utilize the educational workshop curriculum developed in 2009 and distributed announcements to area high school and Extension educators with hopes of drawing greater attendance from the community at large. Two additional reminders were distributed prior to each event, and pre-registration was requested to facilitate meal arrangements. Unfortunately, no registrations were received for either event and they were cancelled due to lack of interest.

The pilot vineyard lease program, detailed in the 2008 and 2009 reports, was developed and again was advertised and promoted to area high schools. Unfortunately, no expressions of interest were received from area FFA chapters.

The demonstration vineyard came into production in 2010 and proved to be invaluable during tours and demonstrations. The vineyard will continue to serve the NW Missouri region as an excellent resource for education and training.

The ICCVE offered and filled four internship positions to F.F.A. students in the region who had an interest in learning more about viticulture. A total of four, 12-week intern positions were established at Baltimore Bend Vineyard in Waverly, Missouri and at Fahrmeier Farms Vineyard in Lexington, Missouri. Students had the opportunity to work throughout the growing season, gaining considerable hands-on viticulture experience.

On September 24th, an FFA Specialty Crops Field Day was presented with over 280 in attendance from various high schools in the region. This surpassed the previous record attendance for the area set in 2008. Activities included garden, vineyard and orchard tours as well as educational presentations on vineyard planning, vineyard establishment, grape cultivars and rootstocks. Presentations were also offered on a variety of specialty crop related subjects ranging from agroforestry, orchard fruits to establishing a market garden business. Students had the opportunity to network one-on-one with area producers and those in related industry. A grape stomp competition was held with each high school providing a team to represent their school in the competition. Students participated in this activity with great enthusiasm.

The following day, on September 25th, a Specialty Crops Festival was held with over 600 people in attendance including students. The event featured activities to showcase specialty crops and local foods.

The day's events included:

- Children's activities
- Five course wine dinner featuring local foods and wines
- Feast for the Eye, a market garden and fruit display competition
- Food and wine seminars given by local chefs, winemakers and ICCVE personnel
- Cooking demonstrations featuring local produce presented by local personalities.

Over 25 vendors including market farmers, food purveyors, area wineries and orchards displayed their products and offered samples to the public.

Goals and Outcomes Achieved

- Area high school students were introduced to grape production; an area of agriculture in which many had little to no previous exposure.
- Agriculture teachers and F.F.A. sponsors were introduced to grape production, provided with educational materials and established relationships with specialty crop experts and resources.
- A demonstration vineyard was established to provide for future educational and training opportunities.
- Successful student internships provided hands-on experience and training in viticulture, paving the way for future job and education possibilities.

- Area high school students, instructors and sponsors participated in successful field days, heightening interest in grape production.
- Area high school students, instructors and sponsors were provided with educational opportunities and given the opportunity to network with growers and producers.
- Interest and attendance at specialty crops events was increased 75% from the initial event in 2008 to the final event in 2010.
- The Specialty Crop Festival was well attended by the public and by students, providing a fun-filled day of activities that showcased the potential in grape production and specialty crops.
- The Specialty Crops Festival helped to demonstrate to students the economic potential of grape production and specialty crops as a whole.

Beneficiaries

Beneficiaries included high school students, F.F.A. members, instructors, sponsors, parents and the area residents who participated in the activities that showcased grape production and specialty crops. In addition, we were able to network and gain the participation of the Old Trails Regional Tourism Partnership, a grassroots, not-for-profit collective working to promote the region.

Current figures set the economic impact of the grape and wine industry in Missouri at approximately \$1.6 billion dollars per year. The field days and festival helped to demonstrate the potential economic benefits of grape production to the students and community at large. Participants from the community gained experience in field day and festival production, making it more likely that these activities would become annual events with continuing economic and educational benefits for the area.

Lessons Learned

The frustration of working to get F.F.A. instructors and agriculture teachers involved with the project stands in stark contrast to the success of the field days and festival.

In retrospect, it appears that we may have garnered greater success had we introduced the concepts of grape production to the students with fun and exciting activities and followed that by offering the more in-depth, educational opportunities, such as the workshops and pilot vineyard lease program.

In projects involving the public school system, a significant amount of personnel time must be allotted for contact, networking, collaboration and marketing to the instructors.

Engaging with community members and community groups helped to reinforce the economic impact of grape production, agro-tourism and associated careers to the students.

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Additional Information

- Please see a copy of the student "Specialty Crops Passport" booklet attached.
- Please see a copy of the festival flyer attached.
- Please see event photos attached.

"Specialty Crops Field Day" Registration and Passport Booklet Registration

<http://iccve.missouri.edu/events/specialty-crops-register.php>

Thanks for joining us!



**Institute for Continental
Climate, Water, and Energy
Management**



Center for Agroforestry
University of Maryland-College Park

Thank you!

Your passport to learning more about specialty crops



Notes

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Station One

Growing Chestnuts in Missouri

The Center for Agroforestry at MU has an active program to develop and improve perennial specialty crops for Missouri landowners. Specialty crops include chestnut, black walnut, pecan, elderberry, pawpaw, pine straw and gourmet mushrooms. Of those mentioned one of the most promising and ready for commercial scale production is the Chinese chestnut, *Castanea mollissima*.

The field day presentation will focus on the Chinese chestnut and include the following topics:

- Why the time is right to launch a chestnut industry in Missouri;
- What we know and don't know about the ins and outs of chestnut growth, production and harvest and processing;
- Chestnut markets, prices, sales and consumers;
- Future value-added opportunities
- What do you do with chestnuts.

About Agroforestry

Agroforestry is new market opportunities. Sustainable agriculture. Land stewardship. Habitat for wildlife. Improved water quality. Diversified farm income. In simple terms, agroforestry is intensive land-use management combining trees and/or shrubs with crops and/or livestock. The five agroforestry practices (forest farming, alleycropping, windbreaks, riparian forest buffers and silvopasture) are designed to fit specific niches within the farm to meet specific landowner objectives. Agroforestry practices help landowners to diversify products, markets, and farm income; improve soil and water quality, and reduce erosion, non-point source pollution and damage due to flooding. The integrated practices of agroforestry enhance land and aquatic habitats for fish and wildlife and improve biodiversity while sustaining land resources for generations to come.

 Center for Agroforestry
University of Missouri-Columbia

Station Two

Orchard Fruit



Apple Tasting & A Comparison of Cultivars

Come grab a slice of a big, juicy apple and learn more about the cultivars that grow in Missouri. Learn more about the characteristics of the cultivars, some of their growing requirements and be the judge – which is the best fruit?

[illegible]

[illegible]

Station Three

So You Want to Make Money With Market Farming?

All across the United States, the demand for fresh, locally grown foods is increasing. Opportunities exist for farmers to create the supply that is needed to meet this demand. Through this presentation you will learn about the necessary components of a profitable specialty crop enterprise. Through the presentations you will learn how to combine the right farm products with appropriate marketing strategies.



College of
Agriculture
Food and
Natural
Resources

Station Four



Vineyards & Grape Production

Learn about vineyard establishment and the special requirements of growing grapes in Missouri!

The MU Institute for Continental Climate Viticulture and Enology (ICCVE) conducts research on best winemaking and grape growing practices and how they impact the growth of the wine industry in Missouri and the Midwest.

A hundred years ago, Missouri was the second-largest wine producing state after New York. Researchers at the University of Missouri (MU) played a key role in saving the French wine industry in the mid-1800s when grapevines in Europe were dying from a parasitic grape pest phylloxera. European grape varieties were saved through being grafted onto American grapevine rootstocks. The KCCV continues rootstock research.

Today, Missouri wines are making a comeback and are winning national and international awards.

At IOCVT, faculty research and teaching teams are working on viticulture (grape production) and oenology (wine production), involving students at both the undergraduate and graduate levels.



Join us for

Lunch!

Lunch will be served beginning at noon.

Be sure to use the time before and after to browse the booths and talk with industry representatives.

The Great Grape Stomp-Out!

Begins at 1:30

Cheer your team on to a grape victory!

Festival Flyer

THE SANTA FE TRAIL FOOD & WINE FESTIVAL



Chestnut Roast
Wine Seminars
Artistic Farmer's Market
Display Competition
Fresh Local Food
Tastings from Missouri Wineries
Cooking Demos
&
MORE!

**SATURDAY
SEPTEMBER 25TH**

**Wine Tastings
& Seminars**

*Celebrating
Old Trails
Regional Cuisine!*

\$5 admission over 21
21 & under free
11:00 am - 5:30 pm



**FAHRMEIER FARMS
LEXINGTON, MISSOURI**



www.SantaFeTrailFestival.com

Vendor Brochure

<http://iccve.missouri.edu/events/vendor-brochure.pdf>

Feast for the Eye Competition Flyer

<http://iccve.missouri.edu/events/farmers-market-comp.pdf>

Photos



Project 3: FFA Youth

Project Summary

The FFA Youth portion of the grant allowed the Missouri Department of Agriculture (MDA) to reach more than two million consumers with the message that supporting local farmers' market helps both the farmers and the local economy and engaged 18 FFA students and 8 FFA Chapters in raising specialty crops. The consumers were reached through targeted radio advertising in key markets across Missouri.

The targeted radio advertising was used to promote buying local specialty crops throughout the state. The goal was to drive traffic to the farmers' markets to purchase the specialty crops being sold. The ads received over two million gross impressions. A gross impression is the number of times the ad was heard on the radio.

Eighteen FFA students and 8 FFA Chapters received grants to purchase equipment and specialty crop seed to start or continue their supervised agricultural experience (SAE) project. These students and chapters grew specialty crops throughout the summer and sold them at farmers' markets or roadside stands. Crops they grew included Yukon Gold potatoes, onions, green beans, cabbage, tomatoes, yellow squash, bell, jalapeno and banana peppers, sweet corn, lettuce, zucchini, cucumbers, cherry tomatoes, beets, salsify, sweet potatoes, watermelon, cantaloupe, radishes, turnips, eggplant, strawberries, raspberries, blueberries, blackberries, pumpkins, apples and peaches. They received practical experience growing specialty crops and hands-on experience direct marketing a specialty crop to the consumer.

Project Approach

Originally the scope of the project was limited to FFA Students only in a small area of Missouri, however; when there were funds remaining MDA opened up the grants to students and FFA Chapters across Missouri in order to better enhance the competitiveness of specialty crops. Chapters and students submitted applications stating what specialty crops they would be growing and how they plan to market these products. The teaching aids to assist students with direct marketing their products were developed and distributed to the students and chapters. A marketing curriculum was not feasible due to their not being enough funds remaining in the grant. This determination was made under the advice of the State Direct of the Vocational Agriculture Program.

Students and chapters completed their projects and submitted the information back to the MDA. Some onsite visits were completed and pictures were taken of the projects. These are included under the Additional Information section of the final report.

Goals and Outcomes Achieved

FFA Specialty Crop Education:

Teaching aids were distributed to assist students with direct marketing their product in the form of Specialty crop educational booklets and guides that were distributed to the various FFA Chapters. This enabled the chapters and students to have an enhanced knowledge of specialty crops for creating successful FFA SAE projects in the future.

Farmers' Market:

MDA assisted with the development of promotional materials for the area farmers' markets. FFA students learned marketing practices from the MDA marketing specialist via promotional material examples a few onsite visits. The MDA marketing specialist was available to assist students and in developing signage, brochures, banners and promotions of specialty crop special events in the region to help promote regional Agritourism. Some of their signage is visible in the pictures included under Additional Information. Sales were also increased at Farmers' Markets and Roadside Stands due to the FFA Students and Chapters selling their specialty crop produce to the public. At least 6 farmers' markets were established in the pilot area of the FFA projects which lead to an increase of approximately \$597,384.00 or about 5% of the market instead of the 30% impact that was originally proposed. Three markets were in the Central Region, one in the west and two in the Greater Kansas City region.

Workshops:

The workshop portion of the Goals was discontinued as there were not enough funds to assist with this type of curriculum. Instead more students and chapters were offered the ability to have funding for growing supplies.

Student Growing Supplies: Students and chapters were provided with the seeds and growing tools needed to start-up their specialty crop projects.

FFA Students: Students and chapters sold their produce through local farmers' markets, roadside stands, or held a local FFA Chapter sale. Some chapters and students competed in a Missouri FFA Proficiency Award in horticulture or the Missouri State Fair Horticulture Contest. 16 separate FFA chapters were exposed to this FFA Youth Specialty Crop project which accounted for over 500 FFA students. More than two students will further their education in specialty crops as they will continue to be involved with FFA and the Chapter Garden projects until they graduate high school. Over 8 specialty crop growers were involved in mentoring the FFA students which included their advisors, their own family growers and local growers in the community. One even partnered with a large farm to sell produce at their local farmers' market.

Beneficiaries

The beneficiaries of these projects included the FFA Students, FFA Chapters, family members of the FFA students, a Senior Citizens Center, the communities where the produce was sold and the gardens were created, and School Culinary Departments and students.

Lessons Learned

This was a large undertaking to coordinate with a total of 26 different students and chapters. I think if we were to do another Specialty Crop project of this type we would limit it to a smaller number of regionally located chapters with a larger amount of funding per chapter. This would still benefit the entire State in enhancing the competitiveness of Specialty Crops, but it would make it more efficient to handle the reporting.

Budget:

The entire \$44,214.98 has been utilized to assist in the 26 individual and FFA Chapter SAE projects.

Additional Information:













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Project 4: Farmers' Market EBT

Project Summary

To assist in the competitiveness of increased sales in specialty crops in farmers' markets, the MDA will offer eligible farmers' markets access to an Electronic Benefit Transfer (EBT) wireless machine. This enabled lower income families an opportunity to purchase fresh foods and vegetables at their local farmers' markets. Since many farmers' markets across the state of Missouri are located in areas where there are no land lines, markets are unable to provide food stamp recipients the ability to buy freshly harvested fruits and vegetables from local farmers in their neighborhood with their EBT cards. To fill this void we placed wireless EBT machines in 17 markets across the state of Missouri, focusing on counties populated with lower income families, therefore promoting the access of low-income food stamp recipients' healthier food and increased sales for Missouri markets. The initial start-up and infrastructure costs of providing farmers market EBT access are considerable, so through this grant we helped to improve and expand farmers' markets which benefits a wide array of specialty crop producers and provide a source for unprocessed, fresh fruit, vegetables, and herbs to eligible EBT participants.

Project Approach

Most of the farmers' market EBT part of this grant was completed in 2008. The farmers' market specialist continued providing information to markets about the EBT machines that are available and distributed the marketing materials that were developed in 2008.

17 of the electronic benefit transfer machines were given to Farmers' Markets throughout the State of Missouri. Project Criteria for disbursement of the machines was updated in January of 2010 and the remainder of the 9 wireless EBTs were distributed prior to the 2010 Farmers' Market season as the criteria was reevaluated for recipients to include markets that had been in existence for less than five years. Marketing materials were distributed in various venues including the State Fair. The EBT machine grant was also blogged about on our MDA Blog. Poster copy was also provided to those Farmers' Market recipients of the EBT machines.

As a result of the distribution of the EBT machines, Farmers' Markets concluded that there were increases in the accessibility of fresh, local produce to those EBT cardholders who previously were unable to shop at their local farmers' market. Starting in 2008, sales increases averaged 4% as reported by the Farmers' markets that received the EBT machines.

The Farmers Markets acted as partners in promoting the ability to accept EBT. Some of the original recipients who did not find significant usage returned the machines to be reissued to the final 17.

Goals and Outcomes Achieved

The goals of this project were to assist the Farmers' Markets in having access to an EBT machine when there are no land lines available and to increase local food access to those that did not previously have access. Demographics were utilized to determine which markets should be eligible for the machines and reevaluated to give a better representation of which markets are likely to succeed with EBT machines.

We are currently at 4% of the 7% goal for increasing sales to local farmers' markets. This continues to increase as awareness grows for local and healthy food and the ability to use EBT is available at the farmers' markets.

We were off by 3% in the amount of increasing sales to the farmers' markets from 2008-2010. The data was collected annually by those that participated in the program by collecting sales data from the farmers' markets and assessing what percent came through the EBT machines.

Beneficiaries

The beneficiaries of the project included the consumers who use EBT and the farmers' markets who received them. The benefits are local, healthy food for the consumer and increased business for the farmers' market.

With Missouri Farmers' Market sales estimated at 11.38 million gross sales according to Dr. Arbindra Rimal's 2009 Missouri Farmers' Market report, a 4% increase could mean as much as 5.18 million dollars in increase throughout the State of Missouri by simply implementing an EBT program.

Lessons Learned

There were challenges in placing EBTs in eligible farmers' markets as they are required to pay for tokens and transaction fees associated with running the machine and the application process took longer than expected. Initially, the criteria on the number of years that the farmer's market had to be in existence in order to apply for a machine was set for five years, so that criteria was updated to make it easier to acquire one of the machines for those that met the remainder of the criteria. It was determined that longevity was not necessarily the best determinant to understand viability of a market.

Budget

The original budget for the EBT machines was **\$24,025.50**.

Contact Person

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573-751-7231
Jennifer.brooks@mda.mo.gov

Additional Information

I have included many of the promotional EBT posters, flyers, brochures, and blog post that were used to promote the program below.

EBT Poster-2008

**OUR
MARKET
ACCEPTS**



***DON'T HAVE CASH
ON HAND?***

***WE ALSO TAKE DEBIT
CARD TRANSACTIONS.***



Missouri
Farmers'
Market
EBT Program

*For more information about the Farmers' Market EBT Program contact the
Missouri Department of Agriculture or see your local farmers' market master.
Contact Lane McConnell at 573-526-4984 with questions.*

EBT Machines Flyer-2009

EBT Machines

EBT Machines Now Available at Farmers' Markets

Several Farmers' Markets around the state of Missouri are now equipped with EBT Machines. The EBT Machines provide easy access to locally grown fruits and vegetables.



If you have any questions please contact the Missouri Department of Agriculture at (573) 751-4211

Locations Include:

Boone County Farmers' Market
City Market
Columbia Farmers' Market
Fair Grove Farmers' Market
Fassnacht Creek Farm (Springfield, MO)
Gateway Greening
(Maplewood Farmer's Market &
Tower Grove Farmers' Market)
Greater Polk County Farmers' Market
Green's Garden (Patton, MO)
MABCC Farmers' Market
North City Farmers' Market
Pony Express Farmers' Market
Richard's Produce (Fetus, MO)
Saveway Food Co (St. Louis, MO)
Sedalia Area Farmers' Market
Simpsons Family Farm
(Mountain Grove Farmers' Market)
Soulard Farmers' Market
Webb City Farmers' Market

EBT Brochure-2009 Front

About the EBT Program

Missouri farmers' markets across the state are accepting debit cards and electronic food stamps this summer making it easier for people to buy local produce, cheeses, homemade breads and pies and a variety of other local Missouri made products this season.



The Missouri Department of Agriculture is placing wireless Point of Sale (POS) terminals in eligible farmers' markets to assist in providing Missourians the opportunity to purchase fresh local produce with food stamps, debit cards, and credit cards. This new improvement to the markets were due to a Specialty Crop Block Grant through the U.S. Department of Agriculture's Agriculture Marketing Service program.

What is a Farmer's Market?

Farmers' markets are a public market where farmers sell produce directly to consumers, usually outdoors.



Use 
at Farmers' Markets



*Missouri Department of
Agriculture*

1616 Missouri Blvd.
Jefferson City, MO 65109
Toll Free Phone: (866) 466-8283



Experience the Freshness

EBT Brochure-2009 Back

How To Use Your EBT Card at Missouri Markets



Missouri farmers' markets and farm stands across the state are now making it more accessible for Food Stamp recipients to purchase fresh and affordable local produce throughout the season.

1. Just take your Electronic Benefits Transfer (EBT) card to the market information table at any of these markets or look for vendors that have signs that read: "We take EBT here".
2. The market master should be at the information table and will ask you how much you want to spend. Your card will be swiped and you will receive tokens for the amount charged.
3. Spend tokens can be spent on any food item except hot and prepared foods.
4. The tokens can also be spent on edible plants like herbs or plants that produce food like tomatoes.

Vendors are unable to give change for EBT tokens. If your purchase requires change, you can pay the whole dollars in tokens and the change in cash.

If you have questions, ask the vendor or the market master.

Farmers' Market EBT Locations Include:

Boone County Farmers' Market

- Columbia, MO

City Market

- Kansas City, MO

Columbia Farmers' Market

- Columbia, MO

Fair Grove Farmers' Market

- Fair Grove, MO

Fassnacht Creek Farm

- Greater Springfield Farmers' Market - Springfield, MO

Gateway Greening

- Maplewood Farmers' Market - Maplewood, MO and Tower Grove Farmers' Market—Tower Grove, MO

Greater Polk County Farmers' Market

- Bolivar, MO

Green's Garden

- Patton, MO

North City Farmers' Market

- North City, MO

Pony Express Farmers' Market

- St. Joseph, MO

Richard's Produce

- Festus, MO

Sedalia Area Farmers' Market

- Sedalia, MO

Simpsons Family Farm

- Mountain Grove Farmers' Market - Mountain Grove, MO

Soulard Farmers' Market

- St. Louis, MO

Webb City Farmers' Market

- Webb City, MO



For directions to any farmers' market, please contact the Missouri Department of Agriculture.

Toll Free Phone: 866-466-8283

EBT Brochure-2010 Front

About the EBT Program

Missouri farmers' markets across the state are accepting debit cards and electronic food stamps this summer making it easier for people to buy local produce, cheeses, homemade breads and pies and a variety of other local Missouri made products this season.



The Missouri Department of Agriculture has placed wireless Point of Sale (POS) terminals in many eligible farmers' markets to assist in providing Missourians the opportunity to purchase fresh local produce with food stamps, debit cards, and credit cards. This new improvement to the markets were due to a Specialty Crop Block Grant through the U.S. Department of Agriculture's Agriculture Marketing Service program.

*Missouri Department of
Agriculture*



1616 Missouri Blvd.
Jefferson City, MO 65109


Toll Free Phone: (866) 466-8283
mda.mo.gov

Accepting EBT Cards



Experience the Freshness

EBT Brochure-2010 Back



How to use your EBT Card at Missouri Markets

Missouri farmers' markets and farm stands across the state are now making it more accessible for Food Stamp recipients to purchase fresh and affordable local produce throughout the season.


1. Just take your Electronic Benefits Transfer (EBT) card to the market information table at any of these markets or look for vendors that have signs that read: "We take EBT here".
2. The market master should be at the information table and will ask you how much you want to spend. Your card will be swiped and you will receive tokens for the amount charged.
3. Tokens can be spent on any food item except hot and prepared foods.
4. The tokens can also be spent on edible plants like herbs or plants that produce food like tomatoes.

Vendors are unable to give change for EBT tokens. If your purchase requires change, you can pay the whole dollars in tokens and the change in cash.

**If you have questions, ask the vendor
or the market master**

Farmers' Market EBT Locations Include:

Boone County Farmers' Market → boonecountyfarmers.com → Columbia, MO	Greater Polk County Farmers' Market → thegreaterpolkcountyfarmersmarket.blogspot.com → Bolivar, MO	Southwest Sustainable Farmers' Market → Buffalo, MO
C Street Market → c-streetmarket.com → Springfield, MO	North City Farmers' Market → nortcityfarmersmarket.org → North City, MO	Versailles Area Farmers' Market → Versailles, MO
Columbia Farmers' Market → columbiafarmersmarket.org → Columbia, MO	Pony Express Farmers' Market → ponyexpressfarmersmarket.com → St. Joseph, MO	Webb City Farmers' Market → Webb City, MO
DeSoto Farmers' Market → beyfreshlocal.blogspot.com → DeSoto, MO	Sedalia Area Farmers' Market → sedaliaareafarmersmarket.com → Sedalia, MO	
Fair Grove Farmers' Market → fairgrovefarmersmarket.com → Fair Grove, MO	Soiland Farmers' Market → stlois.missouri.org/citygov/soilandmarket → St. Louis, MO	



Blog posting-2009

Farmers' Markets Accepting EBT

Several Farmers' Markets around the state of Missouri are now equipped with EBT Machines. The EBT Machines are making it more accessible for Food Stamp recipients to purchase fresh and affordable locally grown fruits and vegetables.

The Electronic Benefit Transfer (EBT) cardholder must take the card to the market information table or look for vendors that have signs that read: We take EBT here. When the consumer goes to the information table the market master or another person in charge will ask them how much they want to spend. Their card will then be swiped and they will receive tokens for the amount they charged. Each token normally will represent either \$1 or \$5.

If tokens are used at the farmers market the vendors will need to meet with the market master at the end of the market day to turn in their tokens. Usually the vendors will receive a check the next week for the amount they sold to EBT users.

EBT cards/tokens can be spent on any food item except hot and prepared foods. It can also be spent on edible plants like herbs or plants that produce food like tomatoes.

The government does not allow the vendors to give change for EBT tokens. If a purchase requires change, the customer can pay the whole dollars in tokens and the change in cash or they can pay the full amount in tokens and give up the change.

Recently a television station located in Springfield, MO covered a story about EBT cards being accepted at the Fair Grove Farmers Market. To read the article, go to KY3's website at <http://www.ky3.com/home/video/48297372.html>.